

WHAT IS CLAIMED IS:

1. A distributed system provided with a plurality of user terminal devices having image-taking means and displaying means, and a server device connected with  
5 said plurality of user terminal devices through communication lines, comprising:

user status recognition means for recognizing the status of user in use of said terminal devices per user terminal device; and

10 control means for controlling the display of user status on the other user terminal devices for said displaying means per user terminal device, wherein

when the pictorial image of a user image-taken by image-taking means of the other user terminal device is  
15 displayed on one of the user terminal devices among each of said user terminal devices, said control means works out the interuser distance between said one of user terminal devices and said other user terminal device, and controls the display of the pictorial image  
20 of the user on said other user terminal device for said displaying means of said one of user terminal devices in accordance with said interuser distance thus worked out.

25 2. A distributed system according to Claim 1, wherein each of said user terminal devices is set within an organization having plural places of duty,

0992557 080701  
T02080 2522660

and the interuser distance between one of said user terminal devices and said other user terminal device is a distance in terms of said organization.

5           3. A distributed system according to Claim 1, wherein said interuser distance is the physical distance between said one of user terminal devices and said other user terminal device.

10           4. A distributed system according to Claim 1, wherein each of said user terminal devices is set within a virtual space, and said interuser distance between said one of user terminal devices and said other user terminal device is a distance in terms of  
15 said virtual space.

20           5. A distributed system according to Claim 1, wherein when the pictorial image of a user image-taken by image-taking means of the other user terminal device is displayed on one of the user terminal devices among  
25 each of said user terminal devices, said control means works out the interuser distance between said one of user terminal devices and said other user terminal device corresponding to the clarity of pictorial image of the user image-taken by image-taking means of said one of user terminal devices.

0992557.000704  
T02080/552650

6. A distributed system according to Claim 5,  
wherein said interuser distance is worked out to be  
smaller as the clarity of pictorial image of the user  
image-taken by image-taking means of said one of user  
5 terminal devices of said user becomes higher.

7. A distributed system according to Claim 1,  
wherein said control means executes the image process  
for the user pictorial image of said other user  
10 terminal device corresponding to said interuser  
distance, and displays on displaying means of said one  
of user terminal devices the pictorial image of the  
other user after the execution of said image process.

8. A distributed system according to Claim 7,  
wherein said image process is a filtering process  
having an intensity corresponding to said interuser  
15 distance.

9. A distributed system according to Claim 8,  
wherein said filtering process is a process using  
mosaic treatment, gradation treatment, or the like.  
20

10. A distributed system according to Claim 8,  
wherein the intensity of said filtering process becomes  
25 higher as said interuser distance becomes greater.

09523537-080701  
T02080-2552560

11. A distributed system according to Claim 1,  
wherein said user status recognition means comprises  
input status recognition means for recognizing the  
status of input from each user of said user terminal  
5 devices; terminal operating status recognition means  
for recognizing the operating status of each of said  
user terminal devices; and image recognition means for  
recognizing the pictorial image of the user image-taken  
by image-taking means of each of said user terminal  
10 devices, and said control means changes said interuser  
distance in accordance with the user status of said one  
of user terminal devices obtained by at least one  
combination or more of the result of each recognition  
given by said input status recognition means, said  
15 terminal operating status recognition means, and said  
image recognition means.

12. A distributed system according to Claim 1,  
further comprising:  
20 designated interuser distance input means for  
inputting a designated interuser distance by the user  
operation, wherein  
said control means controls said interuser  
distance to turn into said designated interuser  
25 distance when said designated interuser distance is  
inputted by said designated interuser distance input  
means.

FILED 1989 11 15 10 10 10

13. A distributed system according to Claim 1, wherein said user status recognition means is provided either for said user terminal device or said server device.

5

14. A distributed system according to Claim 1, wherein said control means is provided either for said user terminal device or said server device.

10

15. A method for controlling the display of a distributed system provided with a plurality of user terminal devices having image-taking means and displaying means, and a server device connected with said plurality of user terminal devices through communication lines, comprising the following steps of:

15

recognizing the status of user in use of said terminal devices per user terminal device;

displaying the user status of the other user terminal device on said displaying means per user terminal device; and

20

working out the interuser distance between said one of user terminal devices and said other user terminal device when the pictorial image of the user image-taken by image-taking means of the other user terminal device is displayed on displaying means of said one of user terminal devices among each of said

25

09923557-080701  
T02080-2552660

user terminal devices, and controlling the display of  
the pictorial image of user of said other user terminal  
devices for said displaying means of said one of user  
terminal devices in accordance with said interuser  
5 distance thus worked out.

16. A method for controlling the display of a  
distributed system according to Claim 15, wherein each  
of said user terminal devices is set within an  
10 organization having plural places of duty, and the  
interuser distance between one of said user terminal  
devices and said other user terminal device is a  
distance in terms of said organization.

15 17. A method for controlling the display of a  
distributed system according to Claim 15, wherein said  
interuser distance is a physical distance between said  
one of user terminal devices and said other user  
terminal device.

20 18. A method for controlling the display of a  
distributed system according to Claim 15, wherein each  
of said user terminal devices is set within a virtual  
space, and said interuser distance between said one of  
25 user terminal devices and said other user terminal  
device is a distance in terms of said virtual space.

0993557-080704  
T02080" 2552650

19. A method for controlling the display of a distributed system according to Claim 15, wherein when the pictorial image of a user image-taken by image-taking means of the other user terminal device is  
5 displayed on one of the user terminal devices among each of said user terminal devices, the interuser distance between said one of user terminal devices and said other user terminal device is worked out in said controlling step corresponding to the clarity of  
10 pictorial image of the user image-taken by image-taking means of said one of user terminal devices.

20. A method for controlling the display of a distributed system according to Claim 19, wherein said  
15 interuser distance is worked out to be smaller as the clarity of pictorial image of the user image-taken by image-taking means of said one of user terminal devices of said user becomes higher.

20 21. A method for controlling the display of a distributed system according to Claim 15, wherein the image process for the user pictorial image of said other user terminal device is executed corresponding to said interuser distance, and on displaying means of  
25 said one of user terminal devices, the pictorial image of the other user is displayed after the execution of said image process.

09923557 080701

22. A method for controlling the display of a distributed system according to Claim 21, wherein said image process is a filtering process having an intensity corresponding to said interuser distance.

5

23. A method for controlling the display of a distributed system according to Claim 22, wherein said filtering process is a process using mosaic treatment, gradation treatment, or the like.

10

24. A method for controlling the display of a distributed system according to Claim 22, wherein the intensity of said filtering process becomes higher as said interuser distance becomes greater.

15

25. A method for controlling the display of a distributed system according to Claim 15, comprising the following steps of:

recognizing the status of input from each user of said user terminal devices;

recognizing the operating status of each user of said user terminal devices;

recognizing the pictorial image of the user image-taken by image-taking means of each of said user terminal devices; and

25

changing said interuser distance in accordance with at least one result of recognition given by the

T02080" 2552550





of a plurality of user terminal devices having image-taking means and displaying means, and a server device connected with said plurality of user terminal devices through communication lines, wherein

5           said program is provided with user status recognition module for recognizing the status of user in use of said terminal devices per user terminal device; and control module for controlling the display of the user status on the other user terminal devices  
10       for said displaying means per user terminal device, and when the pictorial image of a user image-taken by image-taking means of the other user terminal device is displayed on one of the user terminal devices among each of said user terminal devices, said control module  
15       works out the interuser distance between said one of user terminal devices and said other user terminal device, and controls the display of the pictorial image of the user on said other user terminal device for said displaying means of said one of user terminal devices  
20       in accordance with said interuser distance thus worked out.

30. A storage medium according to Claim 29, wherein said user status recognition module comprises  
25       input status recognition module for recognizing the status of input from each user of said user terminal devices; terminal operating status recognition module

092357.080704  
T02080/552550

for recognizing the operating status of each of said  
user terminal devices; and image recognition module for  
recognizing the pictorial image of the user image-taken  
by image-taking means of each of said user terminal  
5 devices, and said controlling module changes said  
interuser distance in accordance with the user status  
of said one of user terminal devices obtained by at  
least one combination or more of the result of each  
recognition given by said input status recognition  
10 module, said terminal operating status recognition  
module, and said image recognition module.

31. A sever device connected with a plurality of  
user terminal devices through communication lines,  
15 comprising:

storage medium for storing the information for  
designating a plurality of virtual spaces to enable a  
user to reside therein, and the information for  
designating one specific virtual space among a  
20 plurality of virtual spaces to be set by said user;

signal receiving means for receiving the user  
information to be transmitted from one of said  
plurality of user terminal devices;

first signal distributing means for distributing  
25 the user information received by said signal receiving  
means to the other user terminal devices positioned in  
said specific virtual space set by the user of the user

092357.080701  
T02080 2552550

terminal device on the transmitting side of said user information; and

second signal distributing means for distributing the user information received by said signal receiving means to the other user terminal devices positioned in the virtual space other than said specific virtual space among a plurality of virtual spaces to enable the user of the user terminal device on the transmitted side of said user information to reside therein.

10

32. A server device according to Claim 31, wherein said second signal distributing means distributes signals to the user terminal devices positioned in the virtual space other than said specific virtual space after the execution of a designated conversion of the user information received by said signal receiving means.

15

33. A server device according to Claim 32, wherein said user information contains the pictorial image data regarding the user.

20

34. A server device according to Claim 33, wherein said designated conversion is a conversion in order to curtail the amount of information of said pictorial image data.

25

0992557.080701  
T02080/5522660

35. A server device according to Claim 31,  
wherein said user information contains message data  
prepared by the user arbitrarily.

5           36. A server device according to Claim 32,  
wherein the user of the user terminal device on the  
transmitting side of said user information can  
designate the execution of the converted contents of  
said designated conversion by said second signal  
10 distributing means.

37. A server device according to Claim 36,  
wherein said designation is made individually per  
virtual space other than said specific virtual space.

38. A user terminal device connected with a server device through communication line, comprising:  
first signal transmitting means for transmitting to said server device the information for designating one specific virtual space set by said user among a plurality of virtual spaces for the user to reside therein;

acquiring means for acquiring the user information  
regarding said user;

25           second signal transmitting means for transmitting  
to said server device the user information acquired by  
said acquiring means; and

reception display means for receiving and displaying the other user information distributed by said server device.

40. A virtual space system formed by a plurality of user terminal devices, and a server device connected with said plurality of user terminal devices through communication lines for structuring virtual spaces on a network comprising:

acquiring means provided for each of the user  
terminal devices for acquiring the user information  
25 regarding the corresponding user;

server device the user information acquired by  
corresponding acquiring means among said acquiring  
means;

5 storage means provided for said server device to  
store the information for designating a plurality of  
virtual spaces for a user to reside therein, and the  
information for designating said specific virtual space  
transmitted by said first transmitting means;

10 signal receiving means provided for said server  
device to receive the user information transmitted from  
said second transmitting means of said plurality of  
user terminal devices;

15 first signal distributing means provided for said  
server device to distribute the user information  
received by said signal receiving means to the other  
user terminal devices positioned in said specific  
virtual space set by the user of the user terminal  
device on the transmitting side of said user  
information;

20 second signal distributing means provided for said  
server device to distribute the user information  
received by said signal receiving means to the other  
user terminal device positioned in the virtual space  
other than said specific virtual space among a  
25 plurality of virtual spaces for enabling the user of  
the user terminal device on the transmitting side of  
said user information to reside therein; and

09023557.080704  
"02080" 2552660





5

10

15

25

transmitting firstly the information for

designating one specific virtual space set by a user  
among a plurality of virtual spaces to enable the user  
to reside therein;

acquiring the user information regarding said  
5 user;

transmitting secondly the user information  
acquired in said acquiring step to the server device;  
and

receiving and displaying the information of other  
10 users distributed from said server device.

45. A method for distributing and displaying user  
information applicable to a virtual space system formed  
by a plurality of user terminal devices and a server  
15 device connected with said plurality of user terminal  
device through communication lines for structuring  
virtual spaces within a network, comprising the  
following:

a first signal transmitting step for each terminal  
20 device to transmit to said server device the  
information for designating one specific virtual space  
set by a user concerned among a plurality of virtual  
spaces to enable the corresponding user to reside  
therein;

25 an acquiring step for each user terminal device to  
acquire user information regarding the corresponding  
user;

09493557.080701  
"02080" 25523660

a second transmitting step for each user terminal device to transmit the user information acquired in said acquiring step to said server device;

5 a storing step for said server device to store the information for designating a plurality of virtual spaces to enable a user to reside therein, and the information for designating said specific virtual space transmitted in said first signal transmitting step;

10 a signal receiving step for said server device to receive the user information transmitted from said plurality of user terminal devices in said second transmitting step;

15 a first signal distributing step for said server device to distribute the user information received in said signal receiving step to the other user terminal devices positioned in said specific virtual space set by the user of the user terminal device on the transmitting side of said user information;

20 a second signal distributing step for said server device to distribute the user information received in said signal receiving step to the other user terminal devices positioned in the virtual space other than said specific space among a plurality of virtual spaces for enabling the user of the user terminal device on the  
25 transmitting side of said user information to reside therein; and

a receiving and displaying step for each user

09923557.080791

terminal device to receive and display the information of other user distributed in said first signal distributing step or said second signal distributing step.

5

46. A method for distributing and displaying user information according to Claim 45, wherein said second signal distributing step executes the designated conversion for the user information received in said signal receiving step, and after that, makes the distribution thereof to the user terminal devices positioned in the virtual space other than said specific virtual space.

15

47. A storage medium readable by a computer for storing a method for distributing user information as a program applicable to the server device connected with a plurality of user terminal device through communication lines, wherein

20

said method for distributing user information comprises:

a storing step for storing the information for designating a plurality of virtual spaces for enabling a user to reside therein, and the information for designating the specific one virtual space set by said user among said plurality of virtual spaces;

25

a signal receiving step to receive the user

090357 "080704  
T04080" 25563660

information transmitted from said plurality of user terminal devices;

5 a first signal distributing step to distribute the user information received in said signal receiving step to the other user terminal devices positioned in said specific virtual space set by the user of the user terminal device on the transmitting side of said user information; and

10 a second signal distributing step to distribute the user information received in said signal receiving step to the other user terminal devices positioned in the virtual space other than said specific virtual space among a plurality of virtual spaces for enabling the user of the user terminal device on the  
15 transmitting side of said user information to reside therein.

48. A storage medium according to Claim 47, wherein said second signal distributing step executes  
20 the designated conversion for the user information received in said signal receiving step, and after that, the distribution thereof is made to the user terminal devices positioned in the virtual space other than said specific virtual space.

25

49. A storage medium readable by a computer for storing a method for displaying user information as a

0903557 080701  
T02080 2552660

program applicable to the user terminal devices  
connected with a server device through communication  
lines, wherein

said method for displaying user information

5 comprises:

a first signal transmitting step for each user  
terminal device to transmit to said server device the  
information for designating the specific one virtual  
space set by a user concerned among a plurality of  
10 virtual space for enabling said user to reside therein;

an acquiring step for acquiring the user  
information regarding said user;

a second signal transmitting step for transmitting  
the user information acquired in said acquiring step to  
15 said server device; and

a displaying step for receiving and displaying the  
other user information distributed from said server  
device.

20 50. A storage medium readable by a computer for  
storing a method for distributing and displaying user  
information as a program applicable to the user  
terminal devices connected with a server device through  
communication lines, wherein

25 said method for distributing and displaying user  
information comprises:

a first signal transmitting step for transmitting

0993557.080701

to said server device the information for designating the specific one virtual space set by a user concerned among a plurality of virtual space for enabling said user to reside therein;

5           an acquiring step for each user terminal device to acquire the user information regarding said user;

          a second signal transmitting step for each user terminal device to transmit to said server device the user information acquired in said acquiring step to  
10       said server device; and

          a storing step for said server device to store the information for designating a plurality of virtual spaces enabling the user to reside therein, and the information for designating said specific virtual space  
15       transmitted in said first signal transmitting step;

          a signal receiving step for said server device to receive the user information transmitted from said plurality of user terminal devices in said second transmitting step;

20           a first signal distributing step for said server device to distribute the user information received in said signal receiving step to the other user terminal devices positioned in said specific virtual space set by the user of user terminal device on the transmitting  
25       side of said user information;

          a second signal distributing step for said server device to distribute the user information received in

09933557.080701

said signal receiving step to the other user terminal devices positioned in the virtual space other than said specific virtual space among a plurality of virtual spaces for enabling the user of the user terminal

5 device on the transmitting side of said user information; and

a receiving and displaying step for each terminal device to receive and display the other user information distributed in said first signal

10 distributing step or said second signal distributing step.

51. A storage medium according to Claim 50, wherein said second signal distributing step executes  
15 the designated conversion of the other user information received in said signal receiving step, and after that, the distribution thereof is made to the user terminal devices positioned in the virtual space other than said specific virtual device.

20 a displaying step for receiving and displaying the other user information distributed from said server device.

05923557.000704